

1R - 427 - 48

REPORTS

DATE:

1-9-2004

EME H-29

IR 0427-48

**FINAL
REPORT**

**RICE OPERATING COMPANY
JUNCTION BOX FINAL REPORT**

BOX LOCATION

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS - FEET		
							Length	Width	Depth
EME	H-29	H	29	21S	36E	Lea	Moved 50 ft East		

LAND TYPE: BLM _____ STATE X FEE LANDOWNER _____ OTHER _____

Depth to Groundwater 174 feet NMOCD SITE ASSESSMENT RANKING SCORE: 0

Date Started 10/21/2003 Date Completed 10/27/2003 OCD Witness No

Soil Excavated 200 (excavation trenches) cubic yards Excavation Length 20 Width 20 Depth 14 feet

Soil Disposed 0 cubic yards Offsite Facility n/a Location n/a

FINAL ANALYTICAL RESULTS: Sample Date 12/30/2003 Sample Depth 46 ft bgs

Procure 5-point composite sample of bottom and 4-point composite sample of sidewalls. TPH, BTEX and Chloride laboratory test results completed by using an approved lab and testing procedures pursuant to NMOCD guidelines.

Sample Location	Benzene mg/kg	Toluene mg/kg	Ethyl Benzene mg/kg	Total Xylenes mg/kg	GRO mg/kg	DRO mg/kg	Chloride mg/kg
Soil Bore @ 46 ft	XXX	XXX	XXX	XXX	XXX	XXX	192
Vertical @ 14 ft (field tests)	PID = 0.0 ppm				XXX	27	1332

CHLORIDE FIELD TESTS

General Description of Remedial Action: During initial delineation trenches made with a backhoe to 14 ft bgs, chloride concentrations did not sufficiently decline. There were no indications of TPH during this delineation (see PID results). A soil bore was performed and at 47 ft bgs, a conclusive decline in chloride concentrations was observed (see graph). Based on the decline, ROC concludes that groundwater is not threatened at this site. The bore was backfilled with cuttings and the site was leveled. Vegetation is already established on the surface. A new watertight junction box has been built 50 ft east of this site.

LOCATION	DEPTH (ft)	ppm
Soil Bore	20	868
	25	986
	30	871
	35	566
	40	645
	45	314
	46	189

enclosures: chloride graph, photos, lab results, PID readings, soil bore

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

DATE 1/9/2004 PRINTED NAME Kristin Farris

SIGNATURE *Kristin Farris* TITLE Project Scientist

EME jct. H-29



Undisturbed box prior to NORM removal



NORM Excavation



Delineation & Excavation

Oct. 2003



Construction of New Junction Box 50 ft East



Looking East: Soil bore location marked by wooden stake; new box in background

CHLORIDE CONCENTRATION CURVE

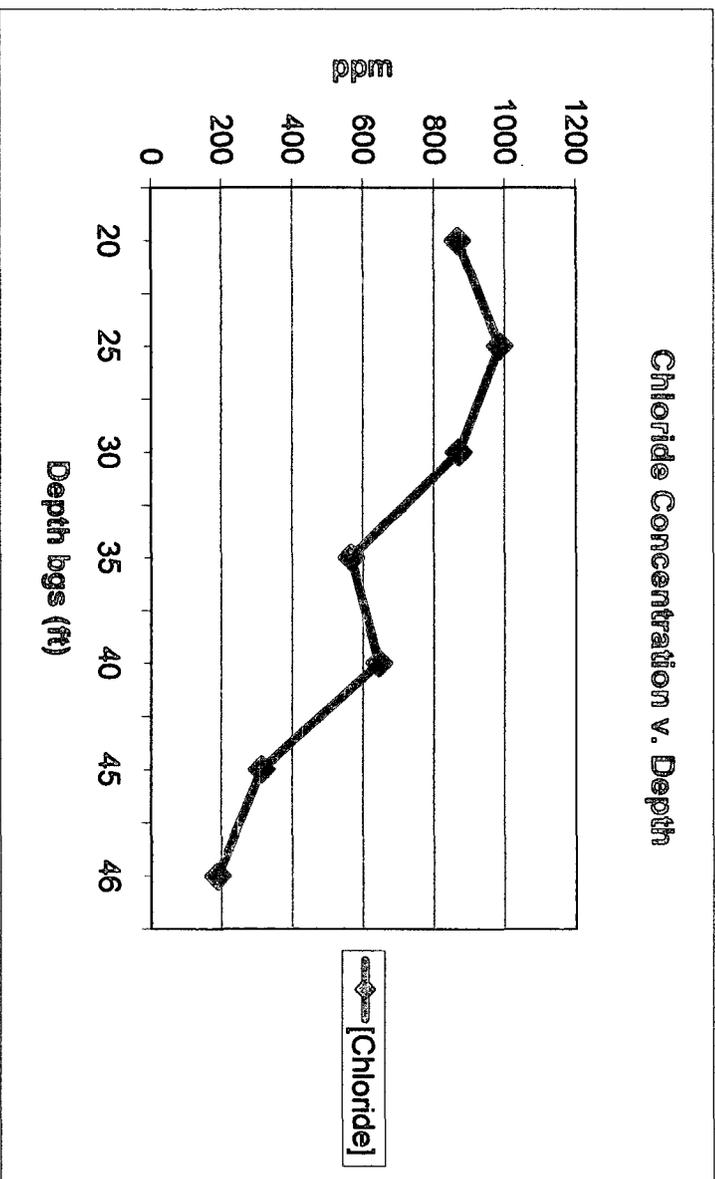
EME jet. H-29

T21S, R36E

Soil Bore

Depth bgs (ft)	[Cl] ppm
20	868
25	986
30	871
35	566
40	645
45	314
46	189

Groundwater = 174 ft



Logger:	Joe Gatts; Mort Bates	Client:	RICE Operating Company	Well ID: SB-1
Driller:	Atkins Engineering Associates, Inc.	Project Name:	jct. H-29	
Drilling Method:	Hollow Stem Auger	Location:	EME SWD System	
Start Date:	12/30/2003		Sec. 29, T21S, R36E	
End Date:	12/30/2003		Lea County, NM	
Notes:	Backfilled with drill cuttings; TD = 47 ft; Groundwater = 174 ft			

Depth (feet)	Split Spoon		Description	Lithology	Additional Notes
	chloride	PID			
0.0					
2.0					
4.0					
6.0					
8.0			Silty sand mixed with broken caliche: loose, reddish brown, dry		
10.0					
12.0					
14.0					
16.0					
18.0					
20.0	868	no odor	Caliche: hard, tan, dry		
22.0					
24.0			Silty sand: loose, tan, dry		
26.0	986	no odor	Caliche: hard, tan, dry		
28.0					
30.0	871	no odor	Silty sand: loose, tan, dry		
32.0					
34.0			Silty sand partially cemented; tan, firm, dry		
36.0	566	no odor			
38.0					
40.0	645	no odor			
42.0			Silty sand: loose, tan, dry		
44.0					
46.0	314	no odor			
	185	odor			lab = 192 ppm Cl ⁻



PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

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ANALYTICAL RESULTS FOR
RICE OPERATING CO.
ATTN: KRISTIN FARRIS
122 W. TAYLOR
HOBBS, NM 88240
FAX TO: (505) 397-1471

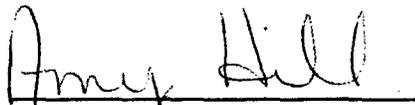
Receiving Date: 01/05/04
Reporting Date: 01/06/04
Project Number: NOT GIVEN
Project Name: EME
Project Location: H-29

Analysis Date: 01/06/04
Sampling Date: 12/30/03
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: AH

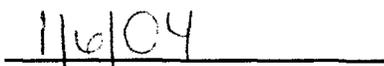
LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/Kg)
H8317-1	SOIL BORE 46' BGS	192
Quality Control		1010
True Value QC		1000
% Recovery		101
Relative Percent Difference		7.0

METHOD: Standard Methods 4500-Cl⁻B

Note: Analysis performed on a 1:4 w:v aqueous extract.



Chemist



Date

PLEASE NOTE: **Liability and Damages.** Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

h8317

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174' GW

STATE
LANDOWNER

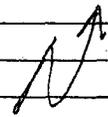
ET6I Jet box Final Report Vertical 14' North 1' at center
SITE EXCAVATION INFORMATION

EMIS # 29 SOURCE

DATE DEPTH CL PID TPH SOIL COMPOSITION

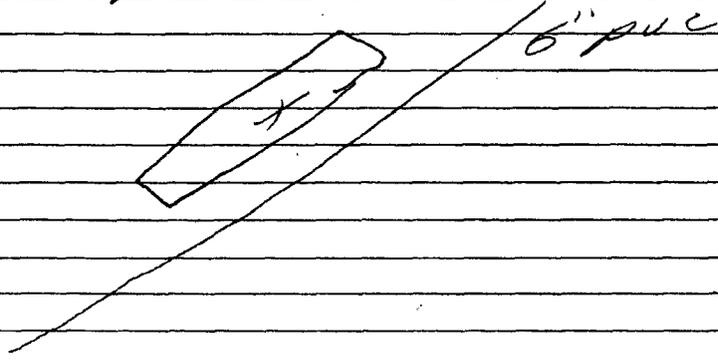
DATE	DEPTH	CL	PID	TPH	SOIL COMPOSITION
10-31-03	4'	580			Brown Sand
	5'	645			Gravel light brown sand
	6'	580			
	7'	500			
	8'	467			
	9'	404			
	10'	527			
	11'	689			
	12'	890	0.0		
	13'	1263	0.0		
	14'	1332	0.0		

Tony AC
07

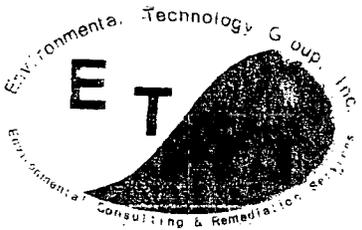


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North 1' from center



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ENVIRONMENTAL TECHNOLOGY GROUP, INC.

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VOC FIELD TEST REPORT FORM

MINI RAE PLUS CLASSIC PHOTOIONIZATION GAS DETECTOR

MODEL NO: PGM 761S

SERIAL NO: 103999

CALIBRATION GAS

GAS COMPOSITION: ISOBUTYLENE

100 PPM

AIR

BALANCE

LOT NO: 67401

FILL DATE: 10-21-03

EXP. DATE: 11/24

ACCURACY: 100 ppm ± 2%

METER READING

ACCURACY: 100.7

SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE
<i>EME</i>	<i>H-29</i>	<i>H</i>	<i>29</i>	<i>215</i>	<i>36E</i>

SAMPLE	PID RESULT	SAMPLE	PID RESULT
<i>Vent 14</i>			
<i>12'</i>	<i>0.0</i>		
<i>13'</i>	<i>0.0</i>		
<i>14'</i>	<i>0.0</i>		

I certify that I have calibrated the above instrument in accordance to the manufacture operation manual.

Ray Stark

Signature

Field Tech

Title

10-21-03

Date